



SEQUENCE LISTING

<110> Huang, Chris
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<120> CNGH0004 POLYPEPTIDES, ANTIBODIES,

<130> CEN0300 PCT

<140> US 60/391,834

<141> 2002-06-27

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<160> 2

<170> PatentIn version 3.1

<210> 1

<211> 11996

<212> DNA

<213> Homo sapiens

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Phe	Leu	Val	Asp	Asp	Ser	Ser	Ser	Val	Gly	Glu	Val	Asn	Phe	Arg	Ser	
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Thr	Ala	Thr	Arg	Val	Ala	Ile	Val	Thr	Phe	Ser	Ser	Lys	Asn	Tyr	Val	
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Val	Pro	Arg	Val	Asp	Tyr	Ile	Ser	Thr	Arg	Arg	Ala	Arg	Gln	His	Lys	
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Gly	Thr	Thr	Lys	Gly	Ala	Phe	Gln	Gln	Ala	Ala	Gln	Ile	Leu	Leu		
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His	Ala	Arg	Glu	Asn	Ser	Thr	Lys	Val	Val	Phe	Leu	Ile	Thr	Asp	Gly	
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Tyr	Ser	Asn	Gly	Gly	Asp	Pro	Arg	Pro	Ile	Ala	Ala	Ser	Leu	Arg	Asp	
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Leu	His	Ser	Phe	Glu	Glu	Phe	Glu	Ala	Leu	Ala	Arg	Arg	Ala	Leu	His	
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Glu	Asp	Leu	Pro	Ser	Gly	Ser	Phe	Ile	Gln	Asp	Asp	Met	Val	His	Cys	
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tgc	aaa	tgt	ggg	aca	cac	aca	ggc	cat	ttt	gag	tgc	atc	tgt	gaa	aag	1927
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Gly	Thr	Tyr	Lys	Pro	Glu	Gly	Ser	Pro	Gly	Gly	Ile	Ser	Ser	Cys	Ile	
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Glu	Asp	Cys	Val	Cys	Arg	Glu	Gly	Tyr	Arg	Ala	Ser	Gly	Gln	Thr	Cys	
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gaa	ctt	gtc	cac	tgc	cct	ggc	ctg	aag	cct	ccc	gaa	aat	ggt	tac	ttt	2167
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tgt cac cct gga ttt gat ctt gtg gga agc agc atc atc tta tgt cta			2263
Cys His Pro Gly Phe Asp Leu Val Gly Ser Ser Ile Ile Leu Cys Leu			
410	415	420	
ccc aat ggt ttg tgg tcc ggt tca gag agc tac tgc aga gta aga aca			2311
Pro Asn Gly Leu Trp Ser Gly Ser Glu Ser Tyr Cys Arg Val Arg Thr			
425	430	435	
tgt cct cat ctc cgc cag ccg aaa cat ggc cac atc agc tgt tct aca			2359
Cys Pro His Leu Arg Gln Pro Lys His Gly His Ile Ser Cys Ser Thr			
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agg gaa atg tta tat aag aca aca tgt ttg gtt gcc tgt gat gaa ggg			2407
Arg Glu Met Leu Tyr Lys Thr Thr Cys Leu Val Ala Cys Asp Glu Gly			
455	460	465	
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Tyr Arg Leu Glu Gly Ser Asp Lys Leu Thr Cys Gln Gly Asn Ser Gln			
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Trp Asp Gly Pro Glu Pro Arg Cys Val Glu Arg His Cys Ser Thr Phe			
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Pro Ala Lys Phe Gly Thr Ile Cys Tyr Val Ser Cys Arg Gln Gly Phe			
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Trp Asn Val Gly Val Gln Ala Ala Val Cys Lys Asp Val Glu Ala Pro			
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Gln Ile Asn Cys Pro Lys Asp Ile Glu Ala Lys Thr Leu Glu Gln Gln			
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Gly Glu Lys Val Ser Val His Val His Pro Ala Phe Thr Pro Pro Tyr			
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Leu Phe Pro Ile Gly Asp Val Ala Ile Val Tyr Thr Ala Thr Asp Leu			
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Ser Gly Asn Gln Ala Ser Cys Ile Phe His Ile Lys Val Ile Asp Ala			
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gaa cca cct gtc ata gac tgg tgc aga tct cca cct ccc gtc cag gtc			2983
Glu Pro Pro Val Ile Asp Trp Cys Arg Ser Pro Pro Pro Val Gln Val			
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tcg gag aag gta cat gcc gca agc tgg gat gag cct cag ttc tca gac			3031
Ser Glu Lys Val His Ala Ala Ser Trp Asp Glu Pro Gln Phe Ser Asp			
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aac tca ggg gct gaa ttg gtc att acc aga agt cat aca caa gga gac			3079
Asn Ser Gly Ala Glu Leu Val Ile Thr Arg Ser His Thr Gln Gly Asp			
680	685	690	
ctt ttc cct caa ggg gag act ata gta cag tat aca gcc act gac ccc			3127

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745	750	755		
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Gly Val Trp Lys Pro Thr Tyr Thr Glu Trp Pro Asp Cys Ala Lys				
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Lys Arg Phe Ala Asn His Gly Phe Lys Ser Phe Glu Met Phe Tyr Lys				
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Phe Glu Thr Thr Leu Gly Lys Met Val Pro Ser Phe Cys Ser Asp Ala				
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Gly Trp Gly Ala Ala Asn Arg Leu Asp Tyr Ser Tyr Asp Asp Phe Leu				
870	875	880	885	
gac act gtg caa gaa aca gcc aca agc atc ggc aat gcc aag tcc tca				3703
Asp Thr Val Gln Glu Thr Ala Thr Ser Ile Gly Asn Ala Lys Ser Ser				
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cgg att aaa aga agt gcc cca tta tct gac tat aaa att aag tta att				3751
Arg Ile Lys Arg Ser Ala Pro Leu Ser Asp Tyr Lys Ile Lys Leu Ile				
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Phe Asn Ile Thr Ala Ser Val Pro Leu Pro Asp Glu Arg Asn Asp Thr				
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Leu Glu Trp Glu Asn Gln Gln Arg Leu Leu Gln Thr Leu Glu Thr Ile				
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Tyr Ile His	Ser Arg Asn Ile Ser	Asp Cys Lys Ala	Gln Cys Lys	
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Gln Gly Thr	Tyr Ser Tyr Ser Gly	Leu Glu Thr Cys	Glu Ser Cys	
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cca ctg ggc	act tat cag cca aaa	ttt ggt tcc cgg agc	tgc ctc	4261
Pro Leu Gly	Thr Tyr Gln Pro Lys	Phe Gly Ser Arg	Ser Cys Leu	
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Ser Gly Leu	Met Pro Cys His Pro	Cys Pro Arg Asp Tyr	Tyr Gln	
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Pro Asn Ala	Gly Lys Ala Phe Cys	Leu Ala Cys Pro Phe	Tyr Gly	
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Phe Ser Ser	Thr Phe Ser Ala Ala	Glu Glu Ser Val Val	Pro Pro	
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Ala Ser Leu	Gly His Ile Lys Lys	Arg His Glu Ile Ser	Ser Gln	
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Cys Gln Gln	Leu Gly Arg Gly Tyr	Val Cys Leu Cys Pro	Leu Gly	
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Tyr Thr Gly	Leu Lys Cys Glu Thr	Asp Ile Asp Glu Cys	Ser Pro	
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Leu Pro Cys	Leu Asn Asn Gly Val	Cys Lys Asp Leu Val	Gly Glu	
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Phe Ile Cys	Glu Cys Pro Ser Gly	Tyr Thr Gly Gln Arg	Cys Glu	
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Ile Cys Val	Asp Gly Val Ala Gly	Tyr Arg Cys Thr Cys	Val Lys	
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Gly Phe Leu	Cys Lys Cys Pro	Pro	Gly Phe Leu Gly	Thr Arg Cys			
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gga aag aac	gtc gat gag tgt	ctc	agt cag cca tgc aaa	aat gga		5071	
Gly Lys Asn	Val Asp Glu Cys	Leu	Ser Gln Pro Cys Lys	Asn Gly			
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gct acc tgt	aaa gac ggt gcc	aat	agc ttc aga tgc ctg	tgt gca		5116	
Ala Thr Cys	Lys Asp Gly Ala	Asn	Ser Phe Arg Cys Leu	Cys Ala			
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Ala Gly Phe	Thr Gly Ser His	Cys	Glu Leu Asn Ile Asn	Glu Cys			
1375		1380		1385			
cag tct aat	cca tgt aga aat	cag	gcc acc tgt gtg gat	gaa tta		5206	
Gln Ser Asn	Pro Cys Arg Asn	Gln	Ala Thr Cys Val Asp	Glu Leu			
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Asn Ser Tyr	Ser Cys Lys Cys	Gln	Pro Gly Phe Ser Gly	Lys Arg			
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Ser Gly Ile	Tyr Gly Tyr Val	Met	Leu Asp Gly Met Leu	Pro Ser			
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Leu His Ala	Leu Thr Cys Thr	Phe	Trp Met Lys Ser Ser	Asp Asp			
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gac aat acc	ttg ctc ctg act	gat	tat aac ggc tgg gtt	ctt tat		5476	
Asp Asn Thr	Leu Leu Leu Thr	Asp	Tyr Asn Gly Trp Val	Leu Tyr			
1480		1485		1490			
gtg aat ggc	agg gaa aag ata	aca	aac tgt ccc tcg gtg	aat gat		5521	
Val Asn Gly	Arg Glu Lys Ile	Thr	Asn Cys Pro Ser Val	Asn Asp			
1495		1500		1505			
ggc aga tgg	cat cat att gca atc	act	tgg aca agt gcc	aat ggc		5566	
Gly Arg Trp	His His Ile Ala	Ile	Thr Trp Thr Ser Ala	Asn Gly			
1510		1515		1520			
atc tgg aaa	gtc tat atc gat	ggg	aaa tta tct gac ggt	ggt gct		5611	
Ile Trp Lys	Val Tyr Ile Asp	Gly	Lys Leu Ser Asp Gly	Gly Ala			
1525		1530		1535			
ggc ctc tct	gtt ggt ttg ccc	ata	cct ggt ggt ggt	gct tta gtt		5656	
Gly Leu Ser	Val Gly Leu Pro	Ile	Pro Gly Gly Gly	Ala Leu Val			
1540		1545		1550			
ctg ggg caa	gag caa gac aaa	aaa	gga gag gga ttc agc	cca gct		5701	
Leu Gly Gln	Glu Gln Asp Lys	Lys	Gly Glu Gly Phe Ser	Pro Ala			
1555		1560		1565			
gag tct ttt	gtg ggc tcc ata	agc	cag ctc aac ctc tgg	gac tat		5746	
Glu Ser Phe	Val Gly Ser Ile	Ser	Gln Leu Asn Leu Trp	Asp Tyr			
1570		1575		1580			
gtc ctg tct	cca cag cag gtg	aag	tca ctg gct acc tcc	tgc cca		5791	
Val Leu Ser	Pro Gln Gln Val	Lys	Ser Leu Ala Thr Ser	Cys Pro			
1585		1590		1595			
gag gaa ctc	agt aaa gga aac	gtg	tta gca tgg cct gat	ttc ttg		5836	

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Glu	Glu	Leu	Ser	Lys	Gly	Asn	Val	Leu	Ala	Trp	Pro	Asp	Phe	Leu	
1600							1605						1610		
tca	gga	att	gtg	ggg	aaa	gtg	aag	atc	gat	tct	aag	agc	ata	ttt	5881
Ser	Gly	Ile	Val	Gly	Lys	Val	Lys	Ile	Asp	Ser	Lys	Ser	Ile	Phe	
1615							1620						1625		
tgt	tct	gat	tgc	cca	cgc	tta	gga	ggg	tca	gtg	cct	cat	ctg	aga	5926
Cys	Ser	Asp	Cys	Pro	Arg	Leu	Gly	Gly	Ser	Val	Pro	His	Leu	Arg	
1630							1635						1640		
act	gca	tct	gaa	gat	tta	aag	cca	ggt	tcc	aaa	gtc	aat	ctg	ttc	5971
Thr	Ala	Ser	Glu	Asp	Leu	Lys	Pro	Gly	Ser	Lys	Val	Asn	Leu	Phe	
1645							1650						1655		
tgt	gat	cca	ggc	ttc	cag	ctg	gtc	ggg	aac	cct	gtg	cag	tac	tgt	6016
Cys	Asp	Pro	Gly	Phe	Gln	Leu	Val	Gly	Asn	Pro	Val	Gln	Tyr	Cys	
1660							1665						1670		
ctg	aat	caa	gga	cag	tgg	aca	caa	cca	ctt	cct	cac	tgt	gaa	cgc	6061
Leu	Asn	Gln	Gly	Gln	Trp	Thr	Gln	Pro	Leu	Pro	His	Cys	Glu	Arg	
1675							1680						1685		
att	agc	tgt	ggg	gtg	cca	cct	cct	ttg	gag	aat	ggc	ttc	cat	tca	6106
Ile	Ser	Cys	Gly	Val	Pro	Pro	Pro	Leu	Glu	Asn	Gly	Phe	His	Ser	
1690							1695						1700		
gcc	gat	gac	ttc	tat	gct	ggc	agc	aca	gta	acc	tac	cag	tgc	aac	6151
Ala	Asp	Asp	Phe	Tyr	Ala	Gly	Ser	Thr	Val	Thr	Tyr	Gln	Cys	Asn	
1705							1710						1715		
aat	ggc	tac	tat	cta	ttg	ggt	gac	tca	agg	atg	ttc	tgt	aca	gat	6196
Asn	Gly	Tyr	Tyr	Leu	Leu	Gly	Asp	Ser	Arg	Met	Phe	Cys	Thr	Asp	
1720							1725						1730		
aat	ggg	agc	tgg	aac	ggc	gtt	tca	cca	tcc	tgc	ctt	gat	gtc	gat	6241
Asn	Gly	Ser	Trp	Asn	Gly	Val	Ser	Pro	Ser	Cys	Leu	Asp	Val	Asp	
1735							1740						1745		
gag	tgt	gca	gtt	gga	tca	gat	tgt	agt	gag	cat	gct	tct	tgc	ctg	6286
Glu	Cys	Ala	Val	Gly	Ser	Asp	Cys	Ser	Glu	His	Ala	Ser	Cys	Leu	
1750							1755						1760		
aac	gta	gat	gga	tcc	tac	ata	tgt	tca	tgt	gtc	cca	ccg	tac	aca	6331
Asn	Val	Asp	Gly	Ser	Tyr	Ile	Cys	Ser	Cys	Val	Pro	Pro	Tyr	Thr	
1765							1770						1775		
gga	gat	ggg	aaa	aac	tgt	gca	gaa	cct	ata	aaa	tgt	aag	gct	cca	6376
Gly	Asp	Gly	Lys	Asn	Cys	Ala	Glu	Pro	Ile	Lys	Cys	Lys	Ala	Pro	
1780							1785						1790		
gga	aat	ccg	gaa	aat	ggc	cac	tcc	tca	ggt	gag	att	tat	aca	gta	6421
Gly	Asn	Pro	Glu	Asn	Gly	His	Ser	Ser	Gly	Glu	Ile	Tyr	Thr	Val	
1795							1800						1805		
ggt	gcc	gca	gtc	aca	ttt	tcg	tgt	cag	gaa	gga	tac	cag	ttg	atg	6466
Gly	Ala	Ala	Val	Thr	Phe	Ser	Cys	Gln	Glu	Gly	Tyr	Gln	Leu	Met	
1810							1815						1820		
gga	gta	acc	aaa	atc	aca	tgt	ttg	gag	tct	gga	gaa	tgg	aat	cat	6511
Gly	Val	Thr	Lys	Ile	Thr	Cys	Leu	Glu	Ser	Gly	Glu	Trp	Asn	His	
1825							1830						1835		
cta	ata	cca	tat	tgt	aaa	gct	gtt	tca	tgt	ggt	aaa	ccg	gct	att	6556
Leu	Ile	Pro	Tyr	Cys	Lys	Ala	Val	Ser	Cys	Gly	Lys	Pro	Ala	Ile	
1840							1845						1850		
cca	gaa	aat	ggt	tgc	att	gag	gag	tta	gca	ttt	act	ttt	ggc	agc	6601
Pro	Glu	Asn	Gly	Cys	Ile	Glu	Glu	Leu	Ala	Phe	Thr	Phe	Gly	Ser	
1855							1860						1865		
aaa	gtg	aca	tat	agg	tgt	aat	aaa	gga	tat	act	ctg	gcc	ggt	gat	6646
Lys	Val	Thr	Tyr	Arg	Cys	Asn	Lys	Gly	Tyr	Thr	Leu	Ala	Gly	Asp	
1870							1875						1880		
aaa	gaa	tca	tcc	tgt	ctt	gct	aac	agt	tct	tgg	agt	cat	tcc	cct	6691
Lys	Glu	Ser	Ser	Cys	Leu	Ala	Asn	Ser	Ser	Trp	Ser	His	Ser	Pro	
1885							1890						1895		

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cct	gtg	tgt	gaa	cca	gtg	aag	tgt	tct	agt	ccg	gaa	aat	ata	aat	6736
Pro	Val	Cys	Glu	Pro	Val	Lys	Cys	Ser	Ser	Pro	Glu	Asn	Ile	Asn	
1900							1905					1910			
aat	gga	aaa	tat	att	ttg	agt	ggg	ctt	acc	tac	ctt	tct	act	gca	6781
Asn	Gly	Lys	Tyr	Ile	Leu	Ser	Gly	Leu	Thr	Tyr	Leu	Ser	Thr	Ala	
1915							1920					1925			
tca	tat	tca	tgc	gat	aca	gga	tac	agc	tta	cag	ggc	cct	tcc	att	6826
Ser	Tyr	Ser	Cys	Asp	Thr	Gly	Tyr	Ser	Leu	Gln	Gly	Pro	Ser	Ile	
1930							1935					1940			
att	gaa	tgc	acg	gct	tct	ggc	atc	tgg	gac	aga	gcg	cca	cct	gcc	6871
Ile	Glu	Cys	Thr	Ala	Ser	Gly	Ile	Trp	Asp	Arg	Ala	Pro	Pro	Ala	
1945							1950					1955			
tgt	cac	ctc	gtc	ttc	tgt	gga	gaa	cca	cct	gcc	atc	aaa	gat	gct	6916
Cys	His	Leu	Val	Phe	Cys	Gly	Glu	Pro	Pro	Ala	Ile	Lys	Asp	Ala	
1960							1965					1970			
gtc	att	acg	ggg	aat	aac	ttc	act	ttc	agg	aac	acc	gtc	act	tac	6961
Val	Ile	Thr	Gly	Asn	Asn	Phe	Thr	Phe	Arg	Asn	Thr	Val	Thr	Tyr	
1975							1980					1985			
act	tgc	aaa	gaa	ggc	tat	act	ctt	gct	ggt	ctt	gac	acc	att	gaa	7006
Thr	Cys	Lys	Glu	Gly	Tyr	Thr	Leu	Ala	Gly	Leu	Asp	Thr	Ile	Glu	
1990							1995					2000			
tgc	ctg	gcc	gac	ggc	aag	tgg	agt	aga	agt	gac	cag	cag	tgc	ctg	7051
Cys	Leu	Ala	Asp	Gly	Lys	Trp	Ser	Arg	Ser	Asp	Gln	Gln	Cys	Leu	
2005							2010					2015			
gct	gtc	tcc	tgt	gat	gag	cca	ccc	att	gtg	gac	cac	gcc	tct	cca	7096
Ala	Val	Ser	Cys	Asp	Glu	Pro	Pro	Ile	Val	Asp	His	Ala	Ser	Pro	
2020							2025					2030			
gag	act	gcc	cat	cgg	ctc	ttt	gga	gac	att	gca	ttc	tac	tac	tgc	7141
Glu	Thr	Ala	His	Arg	Leu	Phe	Gly	Asp	Ile	Ala	Phe	Tyr	Tyr	Cys	
2035							2040					2045			
tct	gat	ggt	tac	agc	cta	gca	gac	aat	tcc	cag	ctt	ctc	tgc	aat	7186
Ser	Asp	Gly	Tyr	Ser	Leu	Ala	Asp	Asn	Ser	Gln	Leu	Leu	Cys	Asn	
2050							2055					2060			
gcc	cag	ggc	aag	tgg	gta	ccc	cca	gaa	ggt	caa	gac	atg	ccc	cgt	7231
Ala	Gln	Gly	Lys	Trp	Val	Pro	Pro	Glu	Gly	Gln	Asp	Met	Pro	Arg	
2065							2070					2075			
tgt	ata	gct	cat	ttc	tgt	gaa	aaa	cct	cca	tcg	gtt	tcc	tat	agc	7276
Cys	Ile	Ala	His	Phe	Cys	Glu	Lys	Pro	Pro	Ser	Val	Ser	Tyr	Ser	
2080							2085					2090			
atc	ttg	gaa	tct	gtg	agc	aaa	gca	aaa	ttt	gca	gct	ggc	tca	gtt	7321
Ile	Leu	Glu	Ser	Val	Ser	Lys	Ala	Lys	Phe	Ala	Ala	Gly	Ser	Val	
2095							2100					2105			
gtg	agc	ttt	aaa	tgc	atg	gaa	ggc	ttt	gta	ctg	aac	acc	tca	gca	7366
Val	Ser	Phe	Lys	Cys	Met	Glu	Gly	Phe	Val	Leu	Asn	Thr	Ser	Ala	
2110							2115					2120			
aag	att	gaa	tgt	atg	aga	ggt	ggg	cag	tgg	aac	cct	tcc	ccc	atg	7411
Lys	Ile	Glu	Cys	Met	Arg	Gly	Gly	Gln	Trp	Asn	Pro	Ser	Pro	Met	
2125							2130					2135			
tcc	atc	cag	tgc	atc	cct	gtg	cg	tgt	gga	gag	cca	cca	agc	atc	7456
Ser	Ile	Gln	Cys	Ile	Pro	Val	Arg	Cys	Gly	Glu	Pro	Pro	Ser	Ile	
2140							2145					2150			
atg	aat	ggc	tat	gca	agt	gga	tca	aac	tac	agt	ttt	gga	gcc	atg	7501
Met	Asn	Gly	Tyr	Ala	Ser	Gly	Ser	Asn	Tyr	Ser	Phe	Gly	Ala	Met	
2155							2160					2165			
gtg	gct	tac	agc	tgc	aac	aag	ggg	ttc	tac	atc	aaa	ggg	gaa	aag	7546
Val	Ala	Tyr	Ser	Cys	Asn	Lys	Gly	Phe	Tyr	Ile	Lys	Gly	Glu	Lys	
2170							2175					2180			
aag	agc	acc	tgc	gaa	gcc	aca	ggg	cag	tgg	agt	agt	cct	ata	ccg	7591
Lys	Ser	Thr	Cys	Glu	Ala	Thr	Gly	Gln	Trp	Ser	Ser	Pro	Ile	Pro	

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2185	2190	2195		
acg tgc cac ccg gta tct tgt	ggt gaa cca cct aag gtt gag aat		7636	
Thr Cys His Pro Val Ser Cys	Gly Glu Pro Pro Lys Val Glu Asn			
2200	2205	2210		
ggc ttt ctg gag cat aca act ggc	agg atc ttt gag agt gaa gtg		7681	
Gly Phe Leu Glu His Thr Thr	Gly Arg Ile Phe Glu Ser Glu Val			
2215	2220	2225		
agg tat cag tgt aac ccg ggc	aat aag tca gtc gga agt cct gta		7726	
Arg Tyr Gln Cys Asn Pro Gly	Tyr Lys Ser Val Gly Ser Pro Val			
2230	2235	2240		
ttt gtc tgc caa gcc aat cgc	cac tgg cac agt gaa tcc cct ctg		7771	
Phe Val Cys Gln Ala Asn Arg	His Trp His Ser Glu Ser Pro Leu			
2245	2250	2255		
atg tgt gtt cct ctc gac tgt	gga aaa cct ccc ccg atc cag aat		7816	
Met Cys Val Pro Leu Asp Cys	Gly Lys Pro Pro Pro Ile Gln Asn			
2260	2265	2270		
ggc ttc atg aaa gga gaa aac	ttt gaa gta ggg tcc aag gtt cag		7861	
Gly Phe Met Lys Gly Glu Asn	Phe Glu Val Gly Ser Lys Val Gln			
2275	2280	2285		
ttt ttc tgt aat gag ggt tat	gag ctt gtt ggt gac agt tct tgg		7906	
Phe Phe Cys Asn Glu Gly Tyr	Glu Leu Val Gly Asp Ser Ser Trp			
2290	2295	2300		
aca tgt cag aaa tct ggc aaa	tgg aat aag aag tca aat cca aag		7951	
Thr Cys Gln Lys Ser Gly Lys	Trp Asn Lys Lys Ser Asn Pro Lys			
2305	2310	2315		
tgc atg cct gcc aag tgc cca	gag ccg ccc ctc ttg gaa aac cag		7996	
Cys Met Pro Ala Lys Cys Pro	Glu Pro Pro Leu Leu Glu Asn Gln			
2320	2325	2330		
cta gta tta aag gag ttg acc	acc gag gta gga gtt gtg aca ttt		8041	
Leu Val Leu Lys Glu Leu Thr	Thr Glu Val Gly Val Val Thr Phe			
2335	2340	2345		
tgc tgt aaa gaa ggg cat gtc	ctg caa ggc ccc tct gtc ctg aaa		8086	
Ser Cys Lys Glu Gly His Val	Leu Gln Gly Pro Ser Val Leu Lys			
2350	2355	2360		
tgc ttg cca tcc cag caa tgg	aat gac tct ttc cct gtt tgt aag		8131	
Cys Leu Pro Ser Gln Gln Trp	Asn Asp Ser Phe Pro Val Cys Lys			
2365	2370	2375		
att gtt ctt tgt acc cca cct	ccc cta att tcc ttt ggt gtc ccc		8176	
Ile Val Leu Cys Thr Pro Pro	Pro Leu Ile Ser Phe Gly Val Pro			
2380	2385	2390		
att cct tct tct gct ctt cat	ttt gga agt act gtc aag tat tct		8221	
Ile Pro Ser Ser Ala Leu His	Phe Gly Ser Thr Val Lys Tyr Ser			
2395	2400	2405		
tgt gta ggt ggg ttt ttc cta	aga gga aat tct acc acc ctc tgc		8266	
Cys Val Gly Gly Phe Phe Leu	Arg Gly Asn Ser Thr Thr Leu Cys			
2410	2415	2420		
caa cct gat ggc acc tgg agc	tct cca ctg cca gaa tgt gtt cca		8311	
Gln Pro Asp Gly Thr Trp Ser	Ser Pro Leu Pro Glu Cys Val Pro			
2425	2430	2435		
gta gaa tgt ccc caa cct gag	gaa atc ccc aat gga atc att gat		8356	
Val Glu Cys Pro Gln Pro Glu	Glu Ile Pro Asn Gly Ile Ile Asp			
2440	2445	2450		
gtg caa ggc ctt gcc tat ctc	agc aca gct ctc tat acc tgc aag		8401	
Val Gln Gly Leu Ala Tyr Leu	Ser Thr Ala Leu Tyr Thr Cys Lys			
2455	2460	2465		
cca ggc ttt gaa ttg gtg gga	aat act acc acc ctt tgt gga gaa		8446	
Pro Gly Phe Glu Leu Val Gly	Asn Thr Thr Thr Leu Cys Gly Glu			
2470	2475	2480		
aat ggt cac tgg ctt gga gga	aaa cca aca tgt aaa gcc att gag		8491	

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Asn	Gly	His	Trp	Leu	Gly	Gly	Lys	Pro	Thr	Cys	Lys	Ala	Ile	Glu	
2485							2490					2495			
tgc	ctg	aaa	ccc	aag	gag	att	ttg	aat	ggc	aaa	ttc	tct	tac	acg	8536
Cys	Leu	Lys	Pro	Lys	Glu	Ile	Leu	Asn	Gly	Lys	Phe	Ser	Tyr	Thr	
2500							2505					2510			
gac	cta	cac	tat	gga	cag	acc	gtt	acc	tac	tct	tgc	aac	cga	ggc	8581
Asp	Leu	His	Tyr	Gly	Gln	Thr	Val	Thr	Tyr	Ser	Cys	Asn	Arg	Gly	
2515							2520					2525			
ttt	cg	ctc	gaa	ggt	ccc	agt	gcc	ttg	acc	tgt	tta	gag	aca	ggt	8626
Phe	Arg	Leu	Glu	Gly	Pro	Ser	Ala	Leu	Thr	Cys	Leu	Glu	Thr	Gly	
2530							2535					2540			
gat	tgg	gat	gta	gat	gcc	cca	tct	tgc	aat	gcc	atc	cac	tgt	gat	8671
Asp	Trp	Asp	Val	Asp	Ala	Pro	Ser	Cys	Asn	Ala	Ile	His	Cys	Asp	
2545							2550					2555			
tcc	cca	caa	ccc	att	gaa	aat	ggt	ttt	gta	gaa	ggt	gca	gat	tac	8716
Ser	Pro	Gln	Pro	Ile	Glu	Asn	Gly	Phe	Val	Glu	Gly	Ala	Asp	Tyr	
2560							2565					2570			
agc	tat	ggt	gcc	ata	atc	atc	tac	agt	tgc	ttc	cct	ggg	ttt	cag	8761
Ser	Tyr	Gly	Ala	Ile	Ile	Ile	Tyr	Ser	Cys	Phe	Pro	Gly	Phe	Gln	
2575							2580					2585			
gtg	gct	ggt	cat	gcc	atg	cag	acc	tgt	gaa	gag	tca	gga	tgg	tca	8806
Val	Ala	Gly	His	Ala	Met	Gln	Thr	Cys	Glu	Glu	Ser	Gly	Trp	Ser	
2590							2595					2600			
agt	tcc	atc	cca	aca	tgt	atg	cca	ata	gac	tgt	ggc	ctc	cct	cct	8851
Ser	Ser	Ile	Pro	Thr	Cys	Met	Pro	Ile	Asp	Cys	Gly	Leu	Pro	Pro	
2605							2610					2615			
cat	ata	gat	ttt	gga	gac	tgt	act	aaa	ctc	aaa	gat	gac	cag	gga	8896
His	Ile	Asp	Phe	Gly	Asp	Cys	Thr	Lys	Leu	Lys	Asp	Asp	Gln	Gly	
2620							2625					2630			
tat	ttt	gag	caa	gaa	gac	gac	atg	atg	gaa	gtt	cca	tat	gtg	act	8941
Tyr	Phe	Glu	Gln	Glu	Asp	Asp	Met	Met	Glu	Val	Pro	Tyr	Val	Thr	
2635							2640					2645			
cct	cac	cct	cct	tat	cat	ttg	gga	gca	gtg	gct	aaa	acc	tgg	gaa	8986
Pro	His	Pro	Pro	Tyr	His	Leu	Gly	Ala	Val	Ala	Lys	Thr	Trp	Glu	
2650							2655					2660			
aat	aca	aag	gag	tct	cct	gct	aca	cat	tca	tca	aac	ttt	ctg	tat	9031
Asn	Thr	Lys	Glu	Ser	Pro	Ala	Thr	His	Ser	Ser	Asn	Phe	Leu	Tyr	
2665							2670					2675			
ggt	acc	atg	gtt	tca	tac	acc	tgt	aat	cca	gga	tat	gaa	ctt	ctg	9076
Gly	Thr	Met	Val	Ser	Tyr	Thr	Cys	Asn	Pro	Gly	Tyr	Glu	Leu	Leu	
2680							2685					2690			
ggg	aac	cct	gtg	ctg	atc	tgc	cag	gaa	gat	gga	act	tgg	aat	ggc	9121
Gly	Asn	Pro	Val	Leu	Ile	Cys	Gln	Glu	Asp	Gly	Thr	Trp	Asn	Gly	
2695							2700					2705			
agt	gca	cca	tcc	tgc	att	tca	att	gaa	tgt	gac	ttg	cct	act	gct	9166
Ser	Ala	Pro	Ser	Cys	Ile	Ser	Ile	Glu	Cys	Asp	Leu	Pro	Thr	Ala	
2710							2715					2720			
cct	gaa	aat	ggc	ttt	ttg	cgt	ttt	aca	gag	act	agc	atg	gga	agt	9211
Pro	Glu	Asn	Gly	Phe	Leu	Arg	Phe	Thr	Glu	Thr	Ser	Met	Gly	Ser	
2725							2730					2735			
gct	gtg	cag	tat	agc	tgt	aaa	cct	gga	cac	att	cta	gca	ggc	tct	9256
Ala	Val	Gln	Tyr	Ser	Cys	Lys	Pro	Gly	His	Ile	Leu	Ala	Gly	Ser	
2740							2745					2750			
gac	tta	agg	ctt	tgt	cta	gag	aat	aga	aag	tgg	agt	ggt	gcc	tcc	9301
Asp	Leu	Arg	Leu	Cys	Leu	Glu	Asn	Arg	Lys	Trp	Ser	Gly	Ala	Ser	
2755							2760					2765			
cca	cgc	tgt	gaa	gcc	att	tca	tgc	aaa	aag	cca	aat	cca	gtc	atg	9346
Pro	Arg	Cys	Glu	Ala	Ile	Ser	Cys	Lys	Lys	Pro	Asn	Pro	Val	Met	
2770							2775					2780			

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aat gga tcc	atc aaa gga agc aac	tac aca tac ctg agc	acg ttg	9391
Asn Gly Ser	Ile Lys Gly Ser	Asn Tyr Thr Tyr	Leu Ser Thr	Leu
2785	2790	2795		
tac tat gag	tgt gac ccc gga tat	gtg ctg aat ggc act	gag agg	9436
Tyr Tyr Glu	Cys Asp Pro Gly	Tyr Val Leu Asn Gly	Thr	Glu Arg
2800	2805	2810		
aga aca tgc	cag gat gac aaa aac	tgg gat gag gat	gag ccc att	9481
Arg Thr Cys	Gln Asp Asp Lys	Asn Trp Asp Glu Asp	Glu Pro	Ile
2815	2820	2825		
tgc att cct	gtg gac tgc agt	ccc cca gtc tca	gcc aat ggc	9526
Cys Ile Pro	Val Asp Cys Ser	Ser Pro Pro Val Ser	Ala Asn Gly	
2830	2835	2840		
cag gtg aga	gga gac gag tac aca	ttc caa aaa gag att	gaa tac	9571
Gln Val Arg	Gly Asp Glu Tyr	Thr Phe Gln Lys Glu	Ile Glu	Tyr
2845	2850	2855		
act tgc aat	gaa ggg ttc ttg	gag gga gcc agg	agt cgg gtt	9616
Thr Cys Asn	Glu Gly Phe Leu	Leu Glu Gly Ala Arg	Ser Arg	Val
2860	2865	2870		
tgt ctt gcc	aat gga agt tgg	agt gga gcc act ccc	gac tgt gtg	9661
Cys Leu Ala	Asn Gly Ser Trp	Ser Gly Ala Thr Pro	Asp Cys	Val
2875	2880	2885		
cct gtc aga	tgt gcc acc ccg	cca caa ctg gcc aat	ggg gtg acg	9706
Pro Val Arg	Cys Ala Thr Pro	Pro Gln Leu Ala Asn	Gly Val	Thr
2890	2895	2900		
gaa ggc ctg	gac tat ggc ttc atg	aag gaa gta aca ttc	cac tgt	9751
Glu Gly Leu	Asp Tyr Gly Phe	Met Lys Glu Val Thr	Phe His	Cys
2905	2910	2915		
cac gag ggc	tac atc ttg cac	ggt gct cca aaa ctc	acc tgt cag	9796
His Glu Gly	Tyr Ile Leu His	Gly Ala Pro Lys Leu	Thr Cys	Gln
2920	2925	2930		
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Ser Asp Gly	Asn Trp Asp Ala	Glu Ile Pro Leu Cys	Lys Pro	Val
2935	2940	2945		
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Asn Cys Gly	Pro Pro Glu Asp	Leu Ala His Gly Phe	Pro Asn	Gly
2950	2955	2960		
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Phe Ser Phe	Ile His Gly Gly	His Ile Gln Tyr Gln	Cys Phe	Pro
2965	2970	2975		
ggt tat aag	ctc cat gga aat	tca aga agg tgc ctc	tcc aat	9976
Gly Tyr Lys	Leu His Gly Asn	Ser Arg Arg Cys	Leu Ser	Asn
2980	2985	2990		
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Gly Ser Trp	Ser Gly Ser Ser	Pro Ser Cys Leu Pro	Cys Arg	Cys
2995	3000	3005		
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Ser Thr Pro	Val Ile Glu Tyr	Gly Thr Val Asn Gly	Thr Asp	Phe
3010	3015	3020		
gac tgt gga	aag gca gcc cgg	att cag tgc ttc aaa	ggc ttc aag	10111
Asp Cys Gly	Lys Ala Ala Arg	Ile Gln Cys Phe Lys	Gly Phe	Lys
3025	3030	3035		
ctc cta gga	ctt tct gaa atc	acc tgt gaa gcc gat	ggc cag tgg	10156
Leu Leu Gly	Leu Ser Glu Ile	Thr Cys Glu Ala Asp	Gly Gln	Trp
3040	3045	3050		
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Ser Ser Gly	Phe Pro His Cys	Glu His Thr Ser Cys	Gly Ser	Leu
3055	3060	3065		
cca atg ata	cca aat gcg ttc atc	agt gag acc agc tct	tgg aag	10246
Pro Met Ile	Pro Asn Ala Phe Ile	Ser Glu Thr Ser Ser	Trp	Lys

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3070	3075	3080				
gaa aat gtg	ata act tac agc	tgc	agg tct gga tat	gtc	ata caa	10291
Glu Asn Val	Ile Thr Tyr Ser	Cys	Arg Ser Gly Tyr	Val	Ile Gln	
3085	3090	3095				
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Gly Ser Ser	Asp Leu Ile Cys	Thr	Glu Lys Gly Val	Trp	Ser Gln	
3100	3105	3110				
cct tat cca	gtc tgt gag ccc	ttg	tcc tgt ggg tcc	cca	ccg tct	10381
Pro Tyr Pro	Val Cys Glu Pro	Leu	Ser Cys Gly Ser	Pro	Pro Ser	
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gtc gcc aat	gca gtg gca act	gga	gag gca cac acc	tat	gaa agt	10426
Val Ala Asn	Ala Val Ala Thr	Gly	Glu Ala His Thr	Tyr	Glu Ser	
3130	3135	3140				
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Glu Val Lys	Leu Arg Cys Leu	Glu	Gly Tyr Thr Met	Asp	Thr Asp	
3145	3150	3155				
aca gat aca	ttc acc tgt cag	aaa	gat ggt cgc tgg	ttc	cct gag	10516
Thr Asp Thr	Phe Thr Cys Gln	Lys	Asp Gly Arg Trp	Phe	Pro Glu	
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Arg Ile Ser	Cys Ser Pro Lys	Lys	Cys Pro Leu Pro	Glu	Asn Ile	
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aca cat ata	ctt gta cat ggg	gac	gat ttc agt gtg	aat	agg caa	10606
Thr His Ile	Ile Leu Val His Gly	Asp	Asp Phe Ser Val	Asn	Arg Gln	
3190	3195	3200				
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Val Ser Val	Ser Cys Ala Glu	Gly	Tyr Thr Phe Glu	Gly	Val Asn	
3205	3210	3215				
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Ile Ser Val	Cys Gln Leu Asp	Gly	Thr Trp Glu Pro	Pro	Phe Ser	
3220	3225	3230				
gat gaa tct	tgc agt cca gtt	tct	tgt ggg aaa cct	gaa	agt cca	10741
Asp Glu Ser	Cys Ser Pro Val	Ser	Cys Gly Lys Pro	Glu	Ser Pro	
3235	3240	3245				
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Glu His Gly	Phe Val Val Gly	Ser	Lys Tyr Thr Phe	Glu	Ser Thr	
3250	3255	3260				
att att tat	cag tgt gag cct	ggc	tat gaa cta gag	ggg	aac agg	10831
Ile Ile Tyr	Gln Cys Glu Pro	Gly	Tyr Glu Leu Glu	Gly	Asn Arg	
3265	3270	3275				
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Glu Arg Val	Cys Gln Glu Asn	Arg	Gln Trp Ser Gly	Gly	Val Ala	
3280	3285	3290				
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Ile Cys Lys	Glu Thr Arg Cys	Glu	Thr Pro Leu Glu	Phe	Leu Asn	
3295	3300	3305				
ggg aaa gct	gac att gaa aac	agg	acg act gga ccc	aac	gtg gta	10966
Gly Lys Ala	Asp Ile Glu Asn	Arg	Thr Thr Gly Pro	Asn	Val Val	
3310	3315	3320				
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Tyr Ser Cys	Asn Arg Gly Tyr	Ser	Leu Glu Gly Pro	Ser	Glu Ala	
3325	3330	3335				
cac tgc aca	gaa aat gga acc	tgg	agc cac cca gtc	cct	ctc tgc	11056
His Cys Thr	Glu Asn Gly Thr	Trp	Ser His Pro Val	Pro	Leu Cys	
3340	3345	3350				
aaa cca aat	cca tgc cct gtt	cct	ttt gtg att ccc	gag	aat gct	11101
Lys Pro Asn	Pro Cys Pro Val	Pro	Phe Val Ile Pro	Glu	Asn Ala	
3355	3360	3365				
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Leu	Leu	Ser	Glu	Lys	Glu	Phe	Tyr	Val	Asp	Gln	Asn	Val	Ser	Ile	
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aaa	tgt	agg	gaa	ggt	ttt	ctg	ctg	cag	ggc	cac	ggc	atc	att	acc	11191
Lys	Cys	Arg	Glu	Gly	Phe	Leu	Leu	Gln	Gly	His	Gly	Ile	Ile	Thr	
3385							3390					3395			
tgc	aac	ccc	gac	gag	acg	tgg	aca	cag	aca	agc	gcc	aaa	tgt	gaa	11236
Cys	Asn	Pro	Asp	Glu	Thr	Trp	Thr	Gln	Thr	Ser	Ala	Lys	Cys	Glu	
3400							3405					3410			
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Lys	Ile	Ser	Cys	Gly	Pro	Pro	Ala	His	Val	Glu	Asn	Ala	Ile	Ala	
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cga	ggc	gta	cat	tat	caa	tat	gga	gac	atg	atc	acc	tac	tca	tgt	11326
Arg	Gly	Val	His	Tyr	Gln	Tyr	Gly	Asp	Met	Ile	Thr	Tyr	Ser	Cys	
3430							3435					3440			
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Tyr	Ser	Gly	Tyr	Met	Leu	Glu	Gly	Phe	Leu	Arg	Ser	Val	Cys	Leu	
3445							3450					3455			
gaa	aat	gga	aca	tgg	aca	tca	cct	cct	att	tgc	aga	gct	gtc	tgt	11416
Glu	Asn	Gly	Thr	Trp	Thr	Ser	Pro	Pro	Ile	Cys	Arg	Ala	Val	Cys	
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Arg	Phé	Pro	Cys	Gln	Asn	Gly	Gly	Ile	Cys	Gln	Arg	Pro	Asn	Ala	
3475							3480					3485			
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Cys	Ser	Cys	Pro	Glu	Gly	Trp	Met	Gly	Arg	Leu	Cys	Glu	Glu	Pro	
3490							3495					3500			
atc	tgc	att	ctt	ccc	tgt	ctg	aac	gga	ggt	cgc	tgt	gtg	gcc	cct	11551
Ile	Cys	Ile	Leu	Pro	Cys	Leu	Asn	Gly	Gly	Arg	Cys	Val	Ala	Pro	
3505							3510					3515			
tac	cag	tgt	gac	tgc	ccg	cct	ggc	tgg	acg	ggg	tct	cgc	tgt	cat	11596
Tyr	Gln	Cys	Asp	Cys	Pro	Pro	Gly	Trp	Thr	Gly	Ser	Arg	Cys	His	
3520							3525					3530			
aca	gct	gtt	tgc	cag	tct	ccc	tgc	tta	aat	ggt	gga	aaa	tgt	gta	11641
Thr	Ala	Val	Cys	Gln	Ser	Pro	Cys	Leu	Asn	Gly	Gly	Lys	Cys	Val	
3535							3540					3545			
aga	cca	aac	cga	tgt	cac	tgt	ctt	tct	tct	tgg	acg	gga	cat	aac	11686
Arg	Pro	Asn	Arg	Cys	His	Cys	Leu	Ser	Ser	Trp	Thr	Gly	His	Asn	
3550							3555					3560			
tgt	tcc	agg	aaa	agg	agg	act	ggg	ttt	taa	ccactgcacg	accatctggc			11736	
Cys	Ser	Arg	Lys	Arg	Arg	Thr	Gly	Phe							
3565							3570								
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ttattttgtg	atatattttg	ttatcccttg	tgacataactt	tcttacatgt	ttccattttt										11916
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				20				25				30			
Arg	Leu	Phe	Pro	Glu	Thr	Ala	Pro	Gly	Ala	Pro	Gly	Ser	Ile	Pro	Ala
				35				40				45			
Pro	Pro	Ala	Pro	Gly	Asp	Glu	Ala	Ala	Gly	Ser	Arg	Val	Glu	Arg	Leu

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Gly	Gln	Ala	Phe	Arg	Arg	Arg	Val	Arg	Leu	Leu	Arg	Glu	Leu	Ser	Glu
65				70					75						80
Arg	Leu	Glu	Leu	Val	Phe	Leu	Val	Asp	Asp	Ser	Ser	Ser	Val	Gly	Glu
					85				90					95	
Val	Asn	Phe	Arg	Ser	Glu	Leu	Met	Phe	Val	Arg	Lys	Leu	Leu	Ser	Asp
					100			105						110	
Phe	Pro	Val	Val	Pro	Thr	Ala	Thr	Arg	Val	Ala	Ile	Val	Thr	Phe	Ser
					115			120						125	
Ser	Lys	Asn	Tyr	Val	Val	Pro	Arg	Val	Asp	Tyr	Ile	Ser	Thr	Arg	Arg
					130			135					140		
Ala	Arg	Gln	His	Lys	Cys	Ala	Leu	Leu	Leu	Gln	Glu	Ile	Pro	Ala	Ile
					145			150			155			160	
Ser	Tyr	Arg	Gly	Gly	Gly	Thr	Tyr	Thr	Lys	Gly	Ala	Phe	Gln	Gln	Ala
					165			170						175	
Ala	Gln	Ile	Leu	Leu	His	Ala	Arg	Glu	Asn	Ser	Thr	Lys	Val	Val	Phe
					180			185						190	
Leu	Ile	Thr	Asp	Gly	Tyr	Ser	Asn	Gly	Gly	Asp	Pro	Arg	Pro	Ile	Ala
					195			200						205	
Ala	Ser	Leu	Arg	Asp	Ser	Gly	Val	Glu	Ile	Phe	Thr	Phe	Gly	Ile	Trp
					210			215						220	
Gln	Gly	Asn	Ile	Arg	Glu	Leu	Asn	Asp	Met	Ala	Ser	Thr	Pro	Lys	Glu
					225			230			235			240	
Glu	His	Cys	Tyr	Leu	Leu	His	Ser	Phe	Glu	Glu	Phe	Glu	Ala	Leu	Ala
					245			250						255	
Arg	Arg	Ala	Leu	His	Glu	Asp	Leu	Pro	Ser	Gly	Ser	Phe	Ile	Gln	Asp
					260			265						270	
Asp	Met	Val	His	Cys	Ser	Tyr	Leu	Cys	Asp	Glu	Gly	Lys	Asp	Cys	Cys
					275			280						285	
Asp	Arg	Met	Gly	Ser	Cys	Lys	Cys	Gly	Thr	His	Thr	Gly	His	Phe	Glu
					290			295						300	
Cys	Ile	Cys	Glu	Lys	Gly	Tyr	Tyr	Gly	Lys	Gly	Leu	Gln	Tyr	Glu	Cys
					305			310			315			320	
Thr	Ala	Cys	Pro	Ser	Gly	Thr	Tyr	Lys	Pro	Glu	Gly	Ser	Pro	Gly	Gly
					325			330						335	
Ile	Ser	Ser	Cys	Ile	Pro	Cys	Pro	Asp	Glu	Asn	His	Thr	Ser	Pro	Pro
					340			345						350	
Gly	Ser	Thr	Ser	Pro	Glu	Asp	Cys	Val	Cys	Arg	Glu	Gly	Tyr	Arg	Ala
					355			360						365	
Ser	Gly	Gln	Thr	Cys	Glu	Leu	Val	His	Cys	Pro	Ala	Leu	Lys	Pro	Pro
					370			375						380	
Glu	Asn	Gly	Tyr	Phe	Ile	Gln	Asn	Thr	Cys	Asn	Asn	His	Phe	Asn	Ala
					385			390			395			400	
Ala	Cys	Gly	Val	Arg	Cys	His	Pro	Gly	Phe	Asp	Leu	Val	Gly	Ser	Ser
					405			410						415	
Ile	Ile	Leu	Cys	Leu	Pro	Asn	Gly	Leu	Trp	Ser	Gly	Ser	Glu	Ser	Tyr
					420			425						430	
Cys	Arg	Val	Arg	Thr	Cys	Pro	His	Leu	Arg	Gln	Pro	Lys	His	Gly	His
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Ile	Ser	Cys	Ser	Thr	Arg	Glu	Met	Leu	Tyr	Lys	Thr	Thr	Cys	Leu	Val
					450			455						460	
Ala	Cys	Asp	Glu	Gly	Tyr	Arg	Leu	Glu	Gly	Ser	Asp	Lys	Leu	Thr	Cys
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Gln	Gly	Asn	Ser	Gln	Trp	Asp	Gly	Pro	Glu	Pro	Arg	Cys	Val	Glu	Arg
					485			490						495	
His	Cys	Ser	Thr	Phe	Gln	Met	Pro	Lys	Asp	Val	Ile	Ile	Ser	Pro	His
					500			505						510	
Asn	Cys	Gly	Lys	Gln	Pro	Ala	Lys	Phe	Gly	Thr	Ile	Cys	Tyr	Val	Ser
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Cys Arg Gln Gly Phe Ile Leu Ser Gly Val Lys Glu Met Leu Arg Cys
 530 535 540
 Thr Thr Ser Gly Lys Trp Asn Val Gly Val Gln Ala Ala Val Cys Lys
 545 550 555 560
 Asp Val Glu Ala Pro Gln Ile Asn Cys Pro Lys Asp Ile Glu Ala Lys
 565 570 575
 Thr Leu Glu Gln Gln Asp Ser Ala Asn Val Thr Trp Gln Ile Pro Thr
 580 585 590
 Ala Lys Asp Asn Ser Gly Glu Lys Val Ser Val His Val His Pro Ala
 595 600 605
 Phe Thr Pro Pro Tyr Leu Phe Pro Ile Gly Asp Val Ala Ile Val Tyr
 610 615 620
 Thr Ala Thr Asp Leu Ser Gly Asn Gln Ala Ser Cys Ile Phe His Ile
 625 630 635 640
 Lys Val Ile Asp Ala Glu Pro Pro Val Ile Asp Trp Cys Arg Ser Pro
 645 650 655
 Pro Pro Val Gln Val Ser Glu Lys Val His Ala Ala Ser Trp Asp Glu
 660 665 670
 Pro Gln Phe Ser Asp Asn Ser Gly Ala Glu Leu Val Ile Thr Arg Ser
 675 680 685
 His Thr Gln Gly Asp Leu Phe Pro Gln Gly Glu Thr Ile Val Gln Tyr
 690 695 700
 Thr Ala Thr Asp Pro Ser Gly Asn Asn Arg Thr Cys Asp Ile His Ile
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 Val Ile Lys Gly Ser Pro Cys Glu Ile Pro Phe Thr Pro Val Asn Gly
 725 730 735
 Asp Phe Ile Cys Thr Pro Asp Asn Thr Gly Val Asn Cys Thr Leu Thr
 740 745 750
 Cys Leu Glu Gly Tyr Asp Phe Thr Glu Gly Ser Thr Asp Lys Tyr Tyr
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 Cys Ala Tyr Glu Asp Gly Val Trp Lys Pro Thr Tyr Thr Thr Glu Trp
 770 775 780
 Pro Asp Cys Ala Lys Lys Arg Phe Ala Asn His Gly Phe Lys Ser Phe
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 Glu Met Phe Tyr Lys Ala Ala Arg Cys Asp Asp Thr Asp Leu Met Lys
 805 810 815
 Lys Phe Ser Glu Ala Phe Glu Thr Thr Leu Gly Lys Met Val Pro Ser
 820 825 830
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 Thr Lys Lys Tyr Cys Leu Glu Tyr Asn Tyr Asp Tyr Glu Asn Gly Phe
 850 855 860
 Ala Ile Gly Pro Gly Gly Trp Gly Ala Ala Asn Arg Leu Asp Tyr Ser
 865 870 875 880
 Tyr Asp Asp Phe Leu Asp Thr Val Gln Glu Thr Ala Thr Ser Ile Gly
 885 890 895
 Asn Ala Lys Ser Ser Arg Ile Lys Arg Ser Ala Pro Leu Ser Asp Tyr
 900 905 910
 Lys Ile Lys Leu Ile Phe Asn Ile Thr Ala Ser Val Pro Leu Pro Asp
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 Glu Arg Asn Asp Thr Leu Glu Trp Glu Asn Gln Gln Arg Leu Leu Gln
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 Thr Leu Glu Thr Ile Thr Asn Lys Leu Lys Arg Thr Leu Asn Lys Asp
 945 950 955 960
 Pro Met Tyr Ser Phe Gln Leu Ala Ser Glu Ile Leu Ile Ala Asp Ser
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Gln	Asp	Glu Glu Gly Gln Leu Glu Cys Lys Leu Cys Pro Ser Gly
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Met	Tyr	Thr Glu Tyr Ile His Ser Arg Asn Ile Ser Asp Cys Lys
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Ala	Gln	Cys Lys Gln Gly Thr Tyr Ser Tyr Ser Gly Leu Glu Thr
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Cys	Glu	Ser Cys Pro Leu Gly Thr Tyr Gln Pro Lys Phe Gly Ser
1070	1075	1080
Arg	Ser	Cys Leu Ser Cys Pro Glu Asn Thr Ser Thr Val Lys Arg
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Gly	Ala	Val Asn Ile Ser Ala Cys Gly Val Pro Cys Pro Glu Gly
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Lys	Phe	Ser Arg Ser Gly Leu Met Pro Cys His Pro Cys Pro Arg
1115	1120	1125
Asp	Tyr	Tyr Gln Pro Asn Ala Gly Lys Ala Phe Cys Leu Ala Cys
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Pro	Phe	Tyr Gly Thr Thr Pro Phe Ala Gly Ser Arg Ser Ile Thr
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Glu	Cys	Ser Ser Phe Ser Ser Thr Phe Ser Ala Ala Glu Glu Ser
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Val	Val	Pro Pro Ala Ser Leu Gly His Ile Lys Lys Arg His Glu
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Ile	Ser	Ser Gln Val Phe His Glu Cys Phe Phe Asn Pro Cys His
1190	1195	1200
Asn	Ser	Gly Thr Cys Gln Gln Leu Gly Arg Gly Tyr Val Cys Leu
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Cys	Pro	Leu Gly Tyr Thr Gly Leu Lys Cys Glu Thr Asp Ile Asp
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Glu	Cys	Ser Pro Leu Pro Cys Leu Asn Asn Gly Val Cys Lys Asp
1235	1240	1245
Leu	Val	Gly Glu Phe Ile Cys Glu Cys Pro Ser Gly Tyr Thr Gly
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Gln	Arg	Cys Glu Glu Asn Ile Asn Glu Cys Ser Ser Pro Cys
1265	1270	1275
Leu	Asn	Lys Gly Ile Cys Val Asp Gly Val Ala Gly Tyr Arg Cys
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Thr	Cys	Val Lys Gly Phe Val Gly Leu His Cys Glu Thr Glu Val
1295	1300	1305
Asn	Glu	Cys Gln Ser Asn Pro Cys Leu Asn Asn Ala Val Cys Glu
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Asp	Gln	Val Gly Gly Phe Leu Cys Lys Cys Pro Pro Gly Phe Leu
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Gly	Thr	Arg Cys Gly Lys Asn Val Asp Glu Cys Leu Ser Gln Pro
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Cys	Lys	Asn Gly Ala Thr Cys Lys Asp Gly Ala Asn Ser Phe Arg
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Cys	Leu	Cys Ala Ala Gly Phe Thr Gly Ser His Cys Glu Leu Asn
1370	1375	1380
Ile	Asn	Glu Cys Gln Ser Asn Pro Cys Arg Asn Gln Ala Thr Cys
1385	1390	1395
Val	Asp	Glu Leu Asn Ser Tyr Ser Cys Lys Cys Gln Pro Gly Phe
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Ser	Gly	Lys Arg Cys Glu Thr Glu Gln Ser Thr Gly Phe Asn Leu
1415	1420	1425
Asp	Phe	Glu Val Ser Gly Ile Tyr Gly Tyr Val Met Leu Asp Gly
1430	1435	1440

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1475						1480					1485			
Trp	Val	Leu	Tyr	Val	Asn	Gly	Arg	Glu	Lys	Ile	Thr	Asn	Cys	Pro
1490						1495					1500			
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1505						1510					1515			
Ser	Ala	Asn	Gly	Ile	Trp	Lys	Val	Tyr	Ile	Asp	Gly	Lys	Leu	Ser
1520						1525					1530			
Asp	Gly	Gly	Ala	Gly	Leu	Ser	Val	Gly	Leu	Pro	Ile	Pro	Gly	Gly
1535						1540					1545			
Gly	Ala	Leu	Val	Leu	Gly	Gln	Glu	Gln	Asp	Lys	Lys	Gly	Glu	Gly
1550						1555					1560			
Phe	Ser	Pro	Ala	Glu	Ser	Phe	Val	Gly	Ser	Ile	Ser	Gln	Leu	Asn
1565						1570					1575			
Leu	Trp	Asp	Tyr	Val	Leu	Ser	Pro	Gln	Gln	Val	Lys	Ser	Leu	Ala
1580						1585					1590			
Thr	Ser	Cys	Pro	Glu	Glu	Leu	Ser	Lys	Gly	Asn	Val	Leu	Ala	Trp
1595						1600					1605			
Pro	Asp	Phe	Leu	Ser	Gly	Ile	Val	Gly	Lys	Val	Lys	Ile	Asp	Ser
1610						1615					1620			
Lys	Ser	Ile	Phe	Cys	Ser	Asp	Cys	Pro	Arg	Leu	Gly	Gly	Ser	Val
1625						1630					1635			
Pro	His	Leu	Arg	Thr	Ala	Ser	Glu	Asp	Leu	Lys	Pro	Gly	Ser	Lys
1640						1645					1650			
Val	Asn	Leu	Phe	Cys	Asp	Pro	Gly	Phe	Gln	Leu	Val	Gly	Asn	Pro
1655						1660					1665			
Val	Gln	Tyr	Cys	Leu	Asn	Gln	Gly	Gln	Trp	Thr	Gln	Pro	Leu	Pro
1670						1675					1680			
His	Cys	Glu	Arg	Ile	Ser	Cys	Gly	Val	Pro	Pro	Pro	Leu	Glu	Asn
1685						1690					1695			
Gly	Phe	His	Ser	Ala	Asp	Asp	Phe	Tyr	Ala	Gly	Ser	Thr	Val	Thr
1700						1705					1710			
Tyr	Gln	Cys	Asn	Asn	Gly	Tyr	Tyr	Leu	Leu	Gly	Asp	Ser	Arg	Met
1715						1720					1725			
Phe	Cys	Thr	Asp	Asn	Gly	Ser	Trp	Asn	Gly	Val	Ser	Pro	Ser	Cys
1730						1735					1740			
Leu	Asp	Val	Asp	Glu	Cys	Ala	Val	Gly	Ser	Asp	Cys	Ser	Glu	His
1745						1750					1755			
Ala	Ser	Cys	Leu	Asn	Val	Asp	Gly	Ser	Tyr	Ile	Cys	Ser	Cys	Val
1760						1765					1770			
Pro	Pro	Tyr	Thr	Gly	Asp	Gly	Lys	Asn	Cys	Ala	Glu	Pro	Ile	Lys
1775						1780					1785			
Cys	Lys	Ala	Pro	Gly	Asn	Pro	Glu	Asn	Gly	His	Ser	Ser	Gly	Glu
1790						1795					1800			
Ile	Tyr	Thr	Val	Gly	Ala	Ala	Val	Thr	Phe	Ser	Cys	Gln	Glu	Gly
1805						1810					1815			
Tyr	Gln	Leu	Met	Gly	Val	Thr	Lys	Ile	Thr	Cys	Leu	Glu	Ser	Gly
1820						1825					1830			
Glu	Trp	Asn	His	Leu	Ile	Pro	Tyr	Cys	Lys	Ala	Val	Ser	Cys	Gly
1835						1840					1845			
Lys	Pro	Ala	Ile	Pro	Glu	Asn	Gly	Cys	Ile	Glu	Glu	Leu	Ala	Phe
1850						1855					1860			
Thr	Phe	Gly	Ser	Lys	Val	Thr	Tyr	Arg	Cys	Asn	Lys	Gly	Tyr	Thr
1865						1870					1875			
Leu	Ala	Gly	Asp	Lys	Glu	Ser	Ser	Cys	Leu	Ala	Asn	Ser	Ser	Trp

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1880	Ser	His	Ser	Pro	Pro	Val	Cys	Glu	Pro	Val	Lys	Cys	Ser	Ser	Pro
1895							1885					1890			
	Glu	Asn	Ile	Asn	Asn	Gly	Lys	Tyr	Ile	Leu	Ser	Gly	Leu	Thr	Tyr
1910							1900					1905			
	Leu	Ser	Thr	Ala	Ser	Tyr	Ser	Cys	Asp	Thr	Gly	Tyr	Ser	Leu	Gln
1925							1915					1920			
	Gly	Pro	Ser	Ile	Ile	Glu	Cys	Thr	Ala	Ser	Gly	Ile	Trp	Asp	Arg
1940							1930					1935			
	Ala	Pro	Pro	Ala	Cys	His	Leu	Val	Phe	Cys	Gly	Glu	Pro	Pro	Ala
1955							1960					1965			
	Ile	Lys	Asp	Ala	Val	Ile	Thr	Gly	Asn	Asn	Phe	Thr	Phe	Arg	Asn
1970							1975					1980			
	Thr	Val	Thr	Tyr	Thr	Cys	Lys	Glu	Gly	Tyr	Thr	Leu	Ala	Gly	Leu
1985							1990					1995			
	Asp	Thr	Ile	Glu	Cys	Leu	Ala	Asp	Gly	Lys	Trp	Ser	Arg	Ser	Asp
2000							2005					2010			
	Gln	Gln	Cys	Leu	Ala	Val	Ser	Cys	Asp	Glu	Pro	Pro	Ile	Val	Asp
2015							2020					2025			
	His	Ala	Ser	Pro	Glu	Thr	Ala	His	Arg	Leu	Phe	Gly	Asp	Ile	Ala
2030							2035					2040			
	Phe	Tyr	Tyr	Cys	Ser	Asp	Gly	Tyr	Ser	Leu	Ala	Asp	Asn	Ser	Gln
2045							2050					2055			
	Leu	Leu	Cys	Asn	Ala	Gln	Gly	Lys	Trp	Val	Pro	Pro	Glu	Gly	Gln
2060							2065					2070			
	Asp	Met	Pro	Arg	Cys	Ile	Ala	His	Phe	Cys	Glu	Lys	Pro	Pro	Ser
2075							2080					2085			
	Val	Ser	Tyr	Ser	Ile	Leu	Glu	Ser	Val	Ser	Lys	Ala	Lys	Phe	Ala
2090							2095					2100			
	Ala	Gly	Ser	Val	Val	Ser	Phe	Lys	Cys	Met	Glu	Gly	Phe	Val	Leu
2105							2110					2115			
	Asn	Thr	Ser	Ala	Lys	Ile	Glu	Cys	Met	Arg	Gly	Gly	Gln	Trp	Asn
2120							2125					2130			
	Pro	Ser	Pro	Met	Ser	Ile	Gln	Cys	Ile	Pro	Val	Arg	Cys	Gly	Glu
2135							2140					2145			
	Pro	Pro	Ser	Ile	Met	Asn	Gly	Tyr	Ala	Ser	Gly	Ser	Asn	Tyr	Ser
2150							2155					2160			
	Phe	Gly	Ala	Met	Val	Ala	Tyr	Ser	Cys	Asn	Lys	Gly	Phe	Tyr	Ile
2165							2170					2175			
	Lys	Gly	Glu	Lys	Lys	Ser	Thr	Cys	Glu	Ala	Thr	Gly	Gln	Trp	Ser
2180							2185					2190			
	Ser	Pro	Ile	Pro	Thr	Cys	His	Pro	Val	Ser	Cys	Gly	Glu	Pro	Pro
2195							2200					2205			
	Lys	Val	Glu	Asn	Gly	Phe	Leu	Glu	His	Thr	Thr	Gly	Arg	Ile	Phe
2210							2215					2220			
	Glu	Ser	Glu	Val	Arg	Tyr	Gln	Cys	Asn	Pro	Gly	Tyr	Lys	Ser	Val
2225							2230					2235			
	Gly	Ser	Pro	Val	Phe	Val	Cys	Gln	Ala	Asn	Arg	His	Trp	His	Ser
2240							2245					2250			
	Glu	Ser	Pro	Leu	Met	Cys	Val	Pro	Leu	Asp	Cys	Gly	Lys	Pro	Pro
2255							2260					2265			
	Pro	Ile	Gln	Asn	Gly	Phe	Met	Lys	Gly	Glu	Asn	Phe	Glu	Val	Gly
2270							2275					2280			
	Ser	Lys	Val	Gln	Phe	Phe	Cys	Asn	Glu	Gly	Tyr	Glu	Leu	Val	Gly
2285							2290					2295			
	Asp	Ser	Ser	Trp	Thr	Cys	Gln	Lys	Ser	Gly	Lys	Trp	Asn	Lys	Lys
2300							2305					2310			
	Ser	Asn	Pro	Lys	Cys	Met	Pro	Ala	Lys	Cys	Pro	Glu	Pro	Pro	Leu
2315							2320					2325			

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Leu	Glu	Asn	Gln	Leu	Val	Leu	Lys	Glu	Leu	Thr	Thr	Glu	Val	Gly
2330						2335						2340		
Val	Val	Thr	Phe	Ser	Cys	Lys	Glu	Gly	His	Val	Leu	Gln	Gly	Pro
2345						2350						2355		
Ser	Val	Leu	Lys	Cys	Leu	Pro	Ser	Gln	Gln	Trp	Asn	Asp	Ser	Phe
2360						2365						2370		
Pro	Val	Cys	Lys	Ile	Val	Leu	Cys	Thr	Pro	Pro	Pro	Leu	Ile	Ser
2375						2380						2385		
Phe	Gly	Val	Pro	Ile	Pro	Ser	Ser	Ala	Leu	His	Phe	Gly	Ser	Thr
2390						2395						2400		
Val	Lys	Tyr	Ser	Cys	Val	Gly	Gly	Phe	Phe	Leu	Arg	Gly	Asn	Ser
2405						2410						2415		
Thr	Thr	Leu	Cys	Gln	Pro	Asp	Gly	Thr	Trp	Ser	Ser	Pro	Leu	Pro
2420						2425						2430		
Glu	Cys	Val	Pro	Val	Glu	Cys	Pro	Gln	Pro	Glu	Glu	Ile	Pro	Asn
2435						2440						2445		
Gly	Ile	Ile	Asp	Val	Gln	Gly	Leu	Ala	Tyr	Leu	Ser	Thr	Ala	Leu
2450						2455						2460		
Tyr	Thr	Cys	Lys	Pro	Gly	Phe	Glu	Leu	Val	Gly	Asn	Thr	Thr	Thr
2465						2470						2475		
Leu	Cys	Gly	Glu	Asn	Gly	His	Trp	Leu	Gly	Gly	Lys	Pro	Thr	Cys
2480						2485						2490		
Lys	Ala	Ile	Glu	Cys	Leu	Lys	Pro	Lys	Glu	Ile	Leu	Asn	Gly	Lys
2495						2500						2505		
Phe	Ser	Tyr	Thr	Asp	Leu	His	Tyr	Gly	Gln	Thr	Val	Thr	Tyr	Ser
2510						2515						2520		
Cys	Asn	Arg	Gly	Phe	Arg	Leu	Glu	Gly	Pro	Ser	Ala	Leu	Thr	Cys
2525						2530						2535		
Leu	Glu	Thr	Gly	Asp	Trp	Asp	Val	Asp	Ala	Pro	Ser	Cys	Asn	Ala
2540						2545						2550		
Ile	His	Cys	Asp	Ser	Pro	Gln	Pro	Ile	Glu	Asn	Gly	Phe	Val	Glu
2555						2560						2565		
Gly	Ala	Asp	Tyr	Ser	Tyr	Gly	Ala	Ile	Ile	Ile	Tyr	Ser	Cys	Phe
2570						2575						2580		
Pro	Gly	Phe	Gln	Val	Ala	Gly	His	Ala	Met	Gln	Thr	Cys	Glu	Glu
2585						2590						2595		
Ser	Gly	Trp	Ser	Ser	Ser	Ile	Pro	Thr	Cys	Met	Pro	Ile	Asp	Cys
2600						2605						2610		
Gly	Leu	Pro	Pro	His	Ile	Asp	Phe	Gly	Asp	Cys	Thr	Lys	Leu	Lys
2615						2620						2625		
Asp	Asp	Gln	Gly	Tyr	Phe	Glu	Gln	Glu	Asp	Asp	Met	Met	Glu	Val
2630						2635						2640		
Pro	Tyr	Val	Thr	Pro	His	Pro	Pro	Tyr	His	Leu	Gly	Ala	Val	Ala
2645						2650						2655		
Lys	Thr	Trp	Glu	Asn	Thr	Lys	Glu	Ser	Pro	Ala	Thr	His	Ser	Ser
2660						2665						2670		
Asn	Phe	Leu	Tyr	Gly	Thr	Met	Val	Ser	Tyr	Thr	Cys	Asn	Pro	Gly
2675						2680						2685		
Tyr	Glu	Leu	Leu	Gly	Asn	Pro	Val	Leu	Ile	Cys	Gln	Glu	Asp	Gly
2690						2695						2700		
Thr	Trp	Asn	Gly	Ser	Ala	Pro	Ser	Cys	Ile	Ser	Ile	Glu	Cys	Asp
2705						2710						2715		
Leu	Pro	Thr	Ala	Pro	Glu	Asn	Gly	Phe	Leu	Arg	Phe	Thr	Glu	Thr
2720						2725						2730		
Ser	Met	Gly	Ser	Ala	Val	Gln	Tyr	Ser	Cys	Lys	Pro	Gly	His	Ile
2735						2740						2745		
Leu	Ala	Gly	Ser	Asp	Leu	Arg	Leu	Cys	Leu	Glu	Asn	Arg	Lys	Trp
2750						2755						2760		
Ser	Gly	Ala	Ser	Pro	Arg	Cys	Glu	Ala	Ile	Ser	Cys	Lys	Lys	Pro

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2765	Asn	Pro	Val	Met	Asn	Gly	Ser	Ile	Lys	Gly	Ser	Asn	Tyr	Thr	Tyr
2770	2775														
2780	Leu	Ser	Thr	Leu	Tyr	Tyr	Glu	Cys	Asp	Pro	Gly	Tyr	Val	Leu	Asn
2785	2790														
2795	Gly	Thr	Glu	Arg	Arg	Thr	Cys	Gln	Asp	Asp	Lys	Asn	Trp	Asp	Glu
2800	2805														
2810	Asp	Glu	Pro	Ile	Cys	Ile	Pro	Val	Asp	Cys	Ser	Ser	Pro	Pro	Val
2815	2820														
2825	Ser	Ala	Asn	Gly	Gln	Val	Arg	Gly	Asp	Glu	Tyr	Thr	Phe	Gln	Lys
2830	2835														
2840	Glu	Ile	Glu	Tyr	Thr	Cys	Asn	Glu	Gly	Phe	Leu	Leu	Glu	Gly	Ala
2845	2850														
2855	Arg	Ser	Arg	Val	Cys	Leu	Ala	Asn	Gly	Ser	Trp	Ser	Gly	Ala	Thr
2860	2865														
2870	Pro	Asp	Cys	Val	Pro	Val	Arg	Cys	Ala	Thr	Pro	Pro	Gln	Leu	Ala
2885	2890														
2895	Asn	Gly	Val	Thr	Glu	Gly	Leu	Asp	Tyr	Gly	Phe	Met	Lys	Glu	Val
2900	2905														
2915	Thr	Phe	His	Cys	His	Glu	Gly	Tyr	Ile	Leu	His	Gly	Ala	Pro	Lys
2920	2925														
2930	Leu	Thr	Cys	Gln	Ser	Asp	Gly	Asn	Trp	Asp	Ala	Glu	Ile	Pro	Leu
2935	2940														
2945	Cys	Lys	Pro	Val	Asn	Cys	Gly	Pro	Pro	Glu	Asp	Leu	Ala	His	Gly
2950	2955														
2960	Phe	Pro	Asn	Gly	Phe	Ser	Phe	Ile	His	Gly	Gly	His	Ile	Gln	Tyr
2965	2970														
2975	Gln	Cys	Phe	Pro	Gly	Tyr	Lys	Leu	His	Gly	Asn	Ser	Ser	Arg	Arg
2980	2985														
2990	Cys	Ile	Ser	Asn	Gly	Ser	Trp	Ser	Gly	Ser	Ser	Pro	Ser	Cys	Leu
2995	3000														
3005	Pro	Cys	Arg	Cys	Ser	Thr	Pro	Val	Ile	Glu	Tyr	Gly	Thr	Val	Asn
3010	3015														
3020	Gly	Thr	Asp	Phe	Asp	Cys	Gly	Lys	Ala	Ala	Arg	Ile	Gln	Cys	Phe
3025	3030														
3035	Lys	Gly	Phe	Lys	Leu	Leu	Gly	Leu	Ser	Glu	Ile	Thr	Cys	Glu	Ala
3040	3045														
3050	Asp	Gly	Gln	Trp	Ser	Ser	Gly	Phe	Pro	His	Cys	Glu	His	Thr	Ser
3055	3060														
3065	Cys	Gly	Ser	Leu	Pro	Met	Ile	Pro	Asn	Ala	Phe	Ile	Ser	Glu	Thr
3070	3075														
3080	Ser	Ser	Trp	Lys	Glu	Asn	Val	Ile	Thr	Tyr	Ser	Cys	Arg	Ser	Gly
3085	3090														
3095	Tyr	Val	Ile	Gln	Gly	Ser	Ser	Asp	Leu	Ile	Cys	Thr	Glu	Lys	Gly
3100	3105														
3110	Val	Trp	Ser	Gln	Pro	Tyr	Pro	Val	Cys	Glu	Pro	Leu	Ser	Cys	Gly
3115	3120														
3125	Ser	Pro	Pro	Ser	Val	Ala	Asn	Ala	Val	Ala	Thr	Gly	Glu	Ala	His
3130	3135														
3140	Thr	Tyr	Glu	Ser	Glu	Val	Lys	Leu	Arg	Cys	Leu	Glu	Gly	Tyr	Thr
3145	3150														
3155	Met	Asp	Thr	Asp	Thr	Asp	Thr	Phe	Thr	Cys	Gln	Lys	Asp	Gly	Arg
3160	3165														
3170	Trp	Phe	Pro	Glu	Arg	Ile	Ser	Cys	Ser	Pro	Lys	Lys	Cys	Pro	Leu
3175	3180														
3185	Pro	Glu	Asn	Ile	Thr	His	Ile	Leu	Val	His	Gly	Asp	Asp	Phe	Ser
3190	3195														
3200	Val	Asn	Arg	Gln	Val	Ser	Val	Ser	Cys	Ala	Glu	Gly	Tyr	Thr	Phe
3205	3210														

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Glu	Gly	Val	Asn	Ile	Ser	Val	Cys	Gln	Leu	Asp	Gly	Thr	Trp	Glu
3215						3220					3225			
Pro	Pro	Phe	Ser	Asp	Glu	Ser	Cys	Ser	Pro	Val	Ser	Cys	Gly	Lys
3230						3235					3240			
Pro	Glu	Ser	Pro	Glu	His	Gly	Phe	Val	Val	Gly	Ser	Lys	Tyr	Thr
3245						3250					3255			
Phe	Glu	Ser	Thr	Ile	Ile	Tyr	Gln	Cys	Glu	Pro	Gly	Tyr	Glu	Leu
3260						3265					3270			
Glu	Gly	Asn	Arg	Glu	Arg	Val	Cys	Gln	Glu	Asn	Arg	Gln	Trp	Ser
3275						3280					3285			
Gly	Gly	Val	Ala	Ile	Cys	Lys	Glu	Thr	Arg	Cys	Glu	Thr	Pro	Leu
3290						3295					3300			
Glu	Phe	Leu	Asn	Gly	Lys	Ala	Asp	Ile	Glu	Asn	Arg	Thr	Thr	Gly
3305						3310					3315			
Pro	Asn	Val	Val	Tyr	Ser	Cys	Asn	Arg	Gly	Tyr	Ser	Leu	Glu	Gly
3320						3325					3330			
Pro	Ser	Glu	Ala	His	Cys	Thr	Glu	Asn	Gly	Thr	Trp	Ser	His	Pro
3335						3340					3345			
Val	Pro	Leu	Cys	Lys	Pro	Asn	Pro	Cys	Pro	Val	Pro	Phe	Val	Ile
3350						3355					3360			
Pro	Glu	Asn	Ala	Leu	Leu	Ser	Glu	Lys	Glu	Phe	Tyr	Val	Asp	Gln
3365						3370					3375			
Asn	Val	Ser	Ile	Lys	Cys	Arg	Glu	Gly	Phe	Leu	Leu	Gln	Gly	His
3380						3385					3390			
Gly	Ile	Ile	Thr	Cys	Asn	Pro	Asp	Glu	Thr	Trp	Thr	Gln	Thr	Ser
3395						3400					3405			
Ala	Lys	Cys	Glu	Lys	Ile	Ser	Cys	Gly	Pro	Pro	Ala	His	Val	Glu
3410						3415					3420			
Asn	Ala	Ile	Ala	Arg	Gly	Val	His	Tyr	Gln	Tyr	Gly	Asp	Met	Ile
3425						3430					3435			
Thr	Tyr	Ser	Cys	Tyr	Ser	Gly	Tyr	Met	Leu	Glu	Gly	Phe	Leu	Arg
3440						3445					3450			
Ser	Val	Cys	Leu	Glu	Asn	Gly	Thr	Trp	Thr	Ser	Pro	Pro	Ile	Cys
3455						3460					3465			
Arg	Ala	Val	Cys	Arg	Phe	Pro	Cys	Gln	Asn	Gly	Gly	Ile	Cys	Gln
3470						3475					3480			
Arg	Pro	Asn	Ala	Cys	Ser	Cys	Pro	Glu	Gly	Trp	Met	Gly	Arg	Leu
3485						3490					3495			
Cys	Glu	Glu	Pro	Ile	Cys	Ile	Leu	Pro	Cys	Leu	Asn	Gly	Gly	Arg
3500						3505					3510			
Cys	Val	Ala	Pro	Tyr	Gln	Cys	Asp	Cys	Pro	Pro	Gly	Trp	Thr	Gly
3515						3520					3525			
Ser	Arg	Cys	His	Thr	Ala	Val	Cys	Gln	Ser	Pro	Cys	Leu	Asn	Gly
3530						3535					3540			
Gly	Lys	Cys	Val	Arg	Pro	Asn	Arg	Cys	His	Cys	Leu	Ser	Ser	Trp
3545						3550					3555			
Thr	Gly	His	Asn	Cys	Ser	Arg	Lys	Arg	Arg	Thr	Gly	Phe		
3560						3565					3570			